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does not normally breathe the dust which he himself raises, but that raised by his workmates further up the air stream, and the turbulence produced in the air stream by obstacles such as props and by the movements of the men themselves, tends to even out the dust concentration across the cross section. Moreover the high concentrations of harmful dust which arise near a dust source are associated with clouds of coarse dust which are physically irritating and which are avoided if possible. And, of course, if the collier moves to and fro across the air stream at any point the average concentration to which he is exposed tends to become equal to the average concentration across the cross-section at that point.

However, the question is not disposed of and experimental investigation is indicated. If indeed it should turn out that some men are exposed to conditions worse than those obtaining at the return end of the face, a possible remedy might be to adjust the level of dustiness permitted at the return end to some value which would ensure that conditions on the rest of the face were satisfactory. Otherwise a suitable position nearer to the dust source would have to be sought.

In sampling for research purposes, no hard and fast rules can be laid down. It is certain, however, that a continuously operating automatic instrument would be of immense value, especially if it

were readily portable. The need for such an instrument for work in the field of x-ray examination has already been noted by Cochrane, Fletcher, Gilson, and Hugh-Jones (1951).

Extensive application of the quality control scheme mentioned above would in time afford a by no means negligible increase in our knowledge of the environmental conditions associated with dust disease. But "conveyor-belt" statistics of the kind this system would produce usually give only broad indications of trends, points for further study, etc., and for detailed investigations the "random collier" method, which is based on modern principles of experimental design, has, as Oldham and Roach show, several important advantages.

This paper is published by permission of the Director General, Scientific Department, National Coal Board. The views expressed in it are those of the author, and must not necessarily be taken to have the Board's support.

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A. MACRAE,
Secretary.

British Medical Association House,
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APPENDIX 2—CONTINUED

Social Class	Heavy Work	Intermediate and Doubtful	Light Work
V	Other workers (navvies) in building, etc. (48) Water transport—dock labourers (57)	Builders', plasterers', bricklayers', and masons' labourers (44) Railway—porters (54) Costermongers, etc., newspaper sellers (66) General labourers and labourers (so described) (87) General labourers, labourers, and other unskilled workers (88)	Messengers and porters, etc. (59)
Population	108,271	754,275	30,264
Mixed IV and V	Agricultural and gardeners' labourers, etc. (3)		
Population	148,660		
Total population social classes III, IV, and V	670,465	1,406,549	540,012

The number in brackets after each occupational group is the Registrar General's code number. The classification of the occupation groups was specially made. Armed Forces were excluded. The populations are taken from the 1931 Census and are for men aged 45–64 inclusive. These 70 groups alone were examined, and not the individual occupations of which the groups are composed.

THE JULY (1953) ISSUE

The July (1953) issue contains the following papers :—

The Pre-impinger. A Selective Aerosol Sampler. By K. R. May and H. A. Druett.

Studies on the Nature of Silicosis : The Effect of Silicic Acid on Connective Tissue. By P. F. Holt and Sonia G. Osborne.

The Incidence of Peptic Ulcer and Chronic Gastritis Among Swedish Sea Pilots. By Tore Dalhamn.

Acute Poisoning Caused by Ingestion of Ethylene Chlorohydrin. By F. Ballotta, P. Bertagni, and F. M. Troisi.

Night Work and Shift Changes. By S. Wyatt and R. Marriott.

Legislation and Litigation. Comments on the Development of Industrial Law. By W. Mansfield Cooper.

From Factory Inspection to Adult Health Service. A Review of Governmental Administration of Occupational Health. By Milton I. Roemer.

Occupational Health Problems of English Painters and Varnishers in 1825. By George Rosen.

Miscellany :

Preliminary Notes on the Treatment of 50 Cases of Tenosynovitis in Industry. By E. L. Knowles and M. D. Kipling.

An Occupational Hygiene Team. By Peter H. Nash and R. J. Sherwood, with the assistance of Joan Bedford.

The Sewerman at Work. By Andrew Meiklejohn.

Health in the Army. A review by Sir Alexander Hood.

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